

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination (RCE) under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/9/08 has been entered.

### ***Response to Amendment***

In the present 9/9/08 RCE amendment, the independent claims 1, 8, and 14 are currently amended, while the dependent claims 2-7, 9-13, and 15-19 remain as previously presented. Claims 1-19 are still pending.

The previous specification objection and the previous claims rejections (under 35 U.S.C. 102, 103, 112 and the provisional obviousness-type double patenting (ODP) rejection) are each withdrawn in view of the current RCE amendment and accompanying remarks, which are found persuasive.

The 9/9/08 terminal disclaimer (TD) is disapproved since it cited the US PGPub number 2007/0020532 instead of the corresponding US application serial number **11/161,084** (which was relied upon in the previous provisional ODP rejection). Nevertheless, this TD is no longer needed in view of the current amendment to the claims and accompanying remarks, which are persuasive.

Claims 1-19 are allowed.

***Terminal Disclaimer***

The terminal disclaimer (TD) filed on 9/9/08 disclaiming the terminal portion of any patent granted on this application is not accepted, because the application cited in the previous provisional ODP rejection of the claims is not properly identified in this TD.

The application/patent being disclaimed has been improperly identified since the number used to identify the application being disclaimed is incorrect. The correct number is US serial number **11/161,084**.

***Allowable Subject Matter***

Claims 1-19 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art does not specifically teach a phase shift photomask (PSM) comprising: a transparent substrate; at least one isolated linear pattern on the substrate, including a transparent end portion with a phase shift of 180° relative to the substrate; a plurality of dense linear patterns on the substrate; and a transparent phase-shift region, located on the substrate adjacent to ends of the dense linear patterns and having a phase shift of 90° relative to the substrate, wherein no phase shift region is present between any two neighboring dense linear patterns that are arranged in a direction different from an extending direction of each dense linear pattern (*instant claim 1* from which *instant claims 2-7* depend, as illustrated on page 7 and discussed on pages 6-11 of the current RCE amendment).

In addition, the prior art does not specifically teach a PSM comprising: a transparent substrate; a plurality of dense linear patterns on the substrate; and a transparent phase-shift region, located on the substrate adjacent to ends of the dense linear patterns and having a phase shift of 90° relative to the substrate, wherein no phase shift region is present between any two

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neighboring dense linear patterns that are arranged in a direction different from an extending direction of each dense linear pattern (*instant claim 14* from which *instant claims 15-19* depend, as discussed on pages 6-11 of the current RCE amendment).

Furthermore, the prior art also fails to specifically teach a PSM comprising: a transparent substrate; and an isolated linear pattern on the substrate, including a transparent end portion with a phase shift of  $180^\circ$  relative to the substrate and with a transparency equal to a transparency of the substrate around the isolated linear pattern, wherein an end of an isolated linear photoresist pattern is defined by the isolated linear pattern in a lithography process, and a position of the end of the isolated linear photoresist pattern corresponds to a position of the transparent end portion in the lithography process (*instant claim 8* from which *instant claims 9-13* depend, as discussed on pages 6-11 of the current RCE amendment).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion and Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Ruggles whose telephone number is (571)272-1390. The examiner can normally be reached on Monday-Wednesday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark F. Huff/  
Supervisory Patent Examiner, Art Unit 1795

/John Ruggles/  
Examiner, Art Unit 1795